Registration No: | | | | | | | | | | |

Total Number of Pages: 04

B.TECH
PECI 5405

7th Semester Regular / Back Examination 2015-16
ESTIMATION, COSTING AND PROFESSIONAL PRACTICE
BRANCH: CIVIL
Time: 3 Hours
Max Marks: 70
Q. CODE: T650

Answer Question No.1 which is compulsory and any five from the rest.
The figures in the right hand margin indicate marks.

Q1 Answer the following questions: (2 x 10)

a) What is plinth area estimate?
b) What are the unit of fixing chaukhats in openings and GI sheet roofing?
c) Differentiate between event and activity.
d) Define overhead charges.
e) Calculate the requirement of labour for 1000 cu.ft Earthwork.
f) What are the main aims of specification?
g) Write standard specification for foundation concrete for Class 'B' Building.
h) What is a dummy activity?
i) What is project planning?
j) State the purposes of rate analysis.

Q2 Estimate the quantities of the following items of work for a building as shown in **Fig 1**.

a) Earthwork in filling. (5)
b) 2.5 cm 1:2:4 cement concrete DPC. (5)

Q3 Estimate the following quantities of a pipe culvert as shown in **Fig. 2**

a) Earthwork in excavation in foundations. (5)
b) Cement concrete 1:4:8 in foundations. (5)

Q4 The network for a certain Building project is shown in **Fig 3 ,**Determine (10)

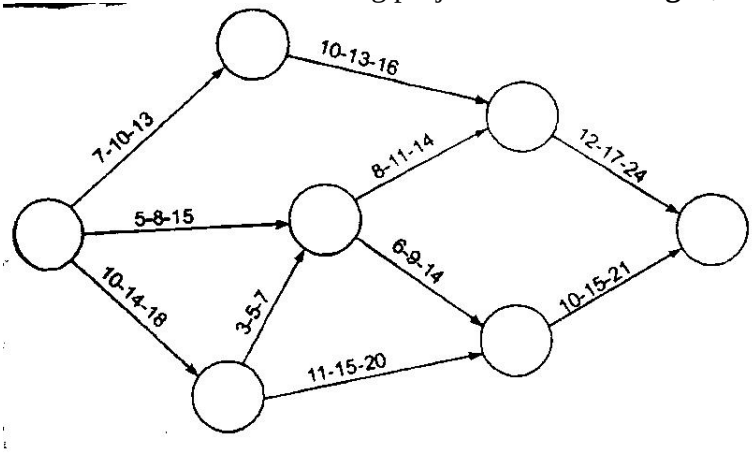


Fig. 3

(i) The expected time for each path.

(ii) Find critical path and project

Q5 a) Give the rate analysis per cum of Ashlar masonry in superstructure in 1:6 cement mortar, including supply of all materials labour, T&P etc. for completion of work. (5)

b) Find out the rate analysis of RCC work in column in proportion of 1:1.5:3 with cement coarse sand and 2 cm stone ballast including supply of all materials, T&P etc. required for complete work. (5)

Q6 a) Outline the detailed specification for 6 cm cement ceiling plaster. (5)

b) Write the detailed specification for varnishing on old surface. (5)

Q7 a) Write network rules. Explain Fulkerson's rule of node numbering. (5)

b) Differentiate between PERT network and CPM network (5)

Q8 Write short notes on any two of the followings (5 x 2)

a) Methods of carrying out works

b) Supplementary and revised estimate

c) Prime cost

d) Error in a network

Cont.....

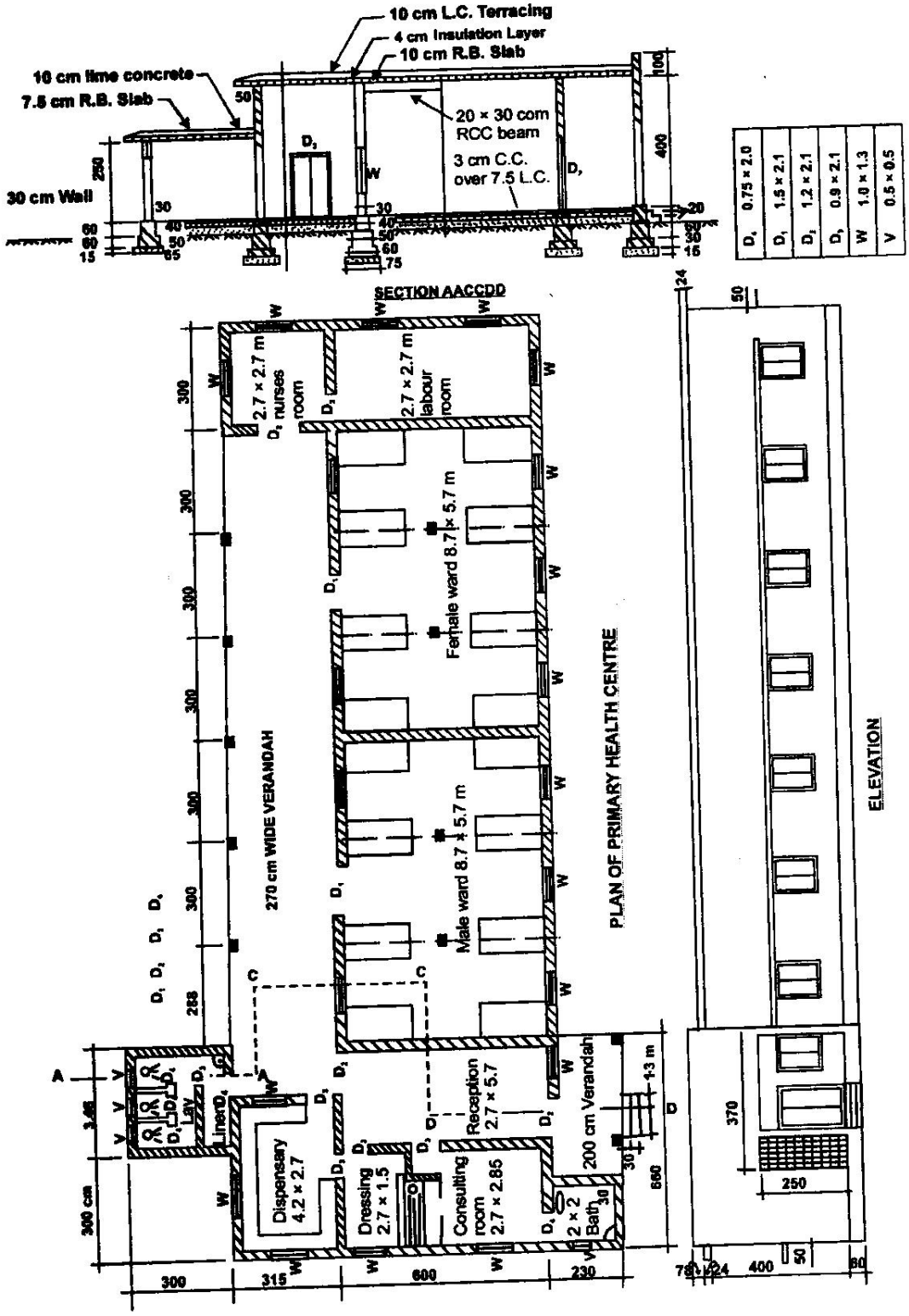
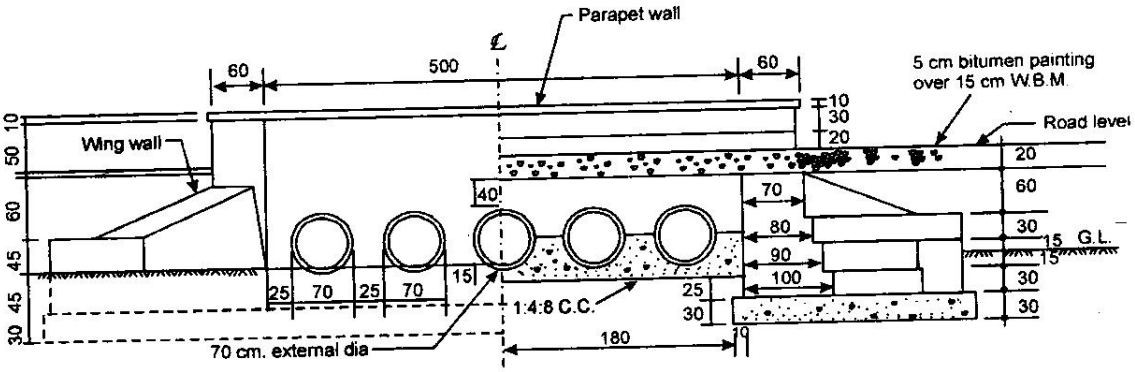
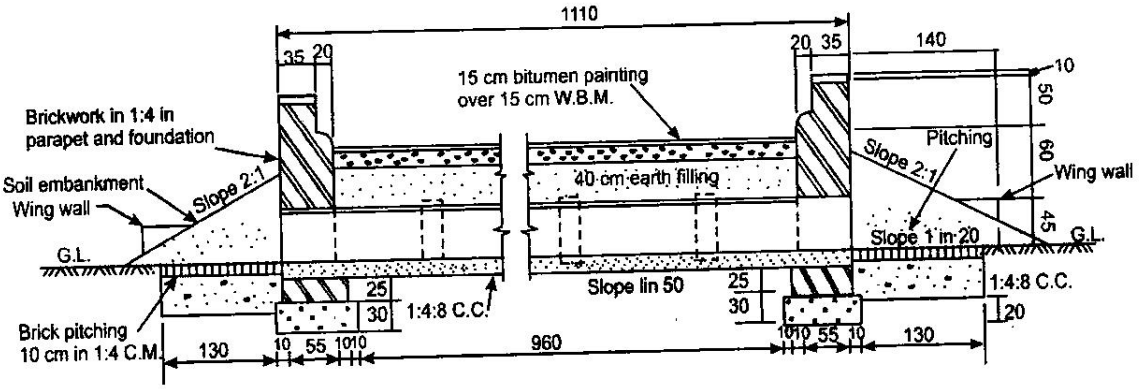

10 cm L.C. Terracing
4 cm Insulation Layer
10 cm R.B. Slab
10 cm lime concrete
7.5 cm R.B. Slab
20 × 30 cm RCC beam
3 cm C.C. over 7.5 L.C.
30 cm Wall
SECTION AACCDD
2.7 × 2.7 m D2 nurses room
2.7 × 2.7 m labour room
Female ward 8.7 × 5.7 m
Male ward 8.7 × 5.7 m
270 cm WIDE VERANDAH
PLAN OF PRIMARY HEALTH CENTRE
Reception 2.7 × 5.7
200 cm Verandah
Dispensary 4.2 × 2.7
Dressing 2.7 × 1.5
Consulting room 2.7 × 2.85
2 × 2 Bath
Lav
Linen
ELEVATION
D1 0.75 × 2.0
D2 1.5 × 2.1
D3 1.2 × 2.1
D4 0.9 × 2.1
W 1.0 × 1.3
V 0.5 × 0.5

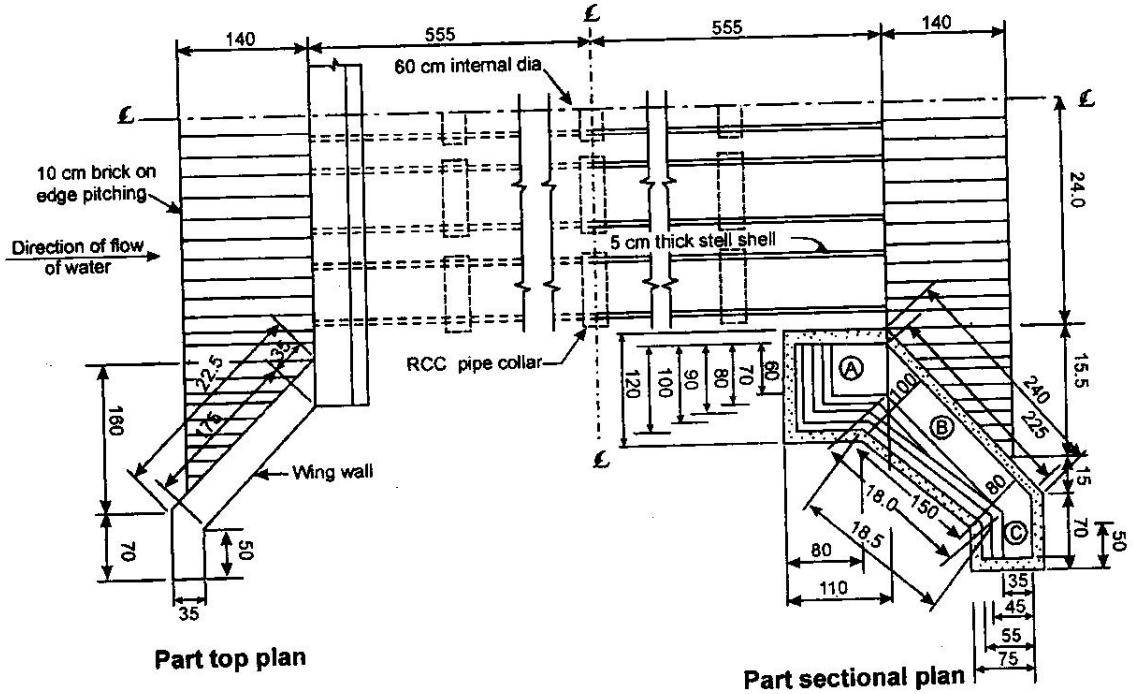
Fig 1



Half Elevation **Half Sectional Elevation**



Sectional Side View



Part top plan **Part sectional plan**

Fig 2